UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
Northeastern Area - State and Private Forestry
Box 365 Delaware, Ohio 43015

REPLY TO: 5230

July 15, 1971

SUBJECT: Preliminary report on evaluation of decline of white ash (Fraxinus americana) over a 5-year period (1966-71)

TO:

The Record

A third examination of two study areas set up in the Bradford District in 1966 was conducted June 29 through July 1, 1971. This is a continuation of a study described in our letter of November 21, 1968. A copy of the letter and a sheet describing the five dieback classes are enclosed.

Average change in dieback class in five years was 0.9. Trees that were in classes 3 or 4, however, changed only 0.6 classes in five years. Ash trees with slightly less than 50 percent of the crown dead - class 3 - would die in about fifteen years and trees with more than 50% of the crown dead-class 4 - would die in about three to five years under the same conditions.

The above estimates will help in selecting trees for salvaging. Trees with more than 50% of the normal number of leaves of good size will have several years of growth before dying.

A more detailed and formal report will be prepared and sent out later this summer.

William Lautz

WILLIAM LAUTZ,
Pathologist

Enc.

FOR INFORMATION

SO, ANF - 5
RF. R-9 - 4
cc: Upper Darby, FPC - 10
Amherst FO
St. Paul FO

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

NA-S&PF Field Office, Delaware, Ohio 43015

REPLY TO: 5230 Evaluation November 21, 1968

SUBJECT: Progress report on evaluation of rate of deterioration of white ash (Fraxinus americana L.) on the Allegheny National Forest

TO: The Record

Introduction

Study areas of white ash were examined according to a working plan for evaluation of rate of decline of white ash on the Allegheny National Forest designed by T. Craig Weidensaul (1965). The plan was initiated for salvage operations which would be needed when the process of decline was completed.

Methods

In 1965, Mr. Weidensaul had marked and numbered 200 trees in five stages of decline as described in Tegethoff and Brandt's publication (1963). His field data sheets included data on D.B.H., tree age, dieback class, and appearance of leaves, twigs and stems. In 1967 S&PF personnel examined 50 of these trees and in 1968 examined 195 of the trees, entering the same data.

Results and Discussion

An average change of 0.56 dieback class per tree, or 0.28 per year per tree, was estimated from changes in the 195 trees, approximately evenly divided among the first four classes at the beginning of the study. At this rate, a healthy ash tree in one of the two areas chosen for the study would die in a little over 14 years. It is not known whether conditions are the same throughout the forest or whether they would remain the same in the study areas in future years. Final data, scheduled to be taken in 1971, will give a more complete evaluation of the rate of decline of ash in this area.

References

Weidensaul, T.C. 1965. Working Plan for Evaluating the Rate of Deterioration of White Ash (Fraxinus americana) on the Allegheny National Forest. Region 7 Southern Zone, Forest Insect and Disease Control, December 27, 1965.

Tegethoff, A. C. and R. W. Brandt. 1964. Ash Die-back in New Hampshire, Vermont, Massachussetts, Connecticut, New Jersey, and Pennsylvania, 1963. Plant Disease Reporter 48 : 974-977.

William Faust

Class 1: Trees healthy; leaves dark green; no dead bare twigs in living crown.

Class 2: Top thin; leaves tending to clump at end of twigs; foliage paler green than normal; leaves may be dwarfed; some dead twigs; possibly some cankers at base of twigs.

Class 3: Twigs dying back; less than 50% of crown dead; leaves clumped at end of twigs and branches, and leaflets dwarfed; foliage pale green; cankers possibly visible on branches and stem.

Class 4: Branches dying back; more than 50% of crown dead, epicormic branches may be present, leaves clumped, and leaflets dwarfed; foliage pale green; cankers sometimes visible on branches and stems.

Class 5: Tree dead.